

General Biology

THE IMPACT OF THE CRYPTOGENIC BRYOZOAN *VICTORELLA PAVIDA* ON  
FOULING COMMUNITY DEVELOPMENT IN THE RHODE RIVER,  
MARYLAND

Laura C. Page

Elizabeth Jewett

Whitman Miller

Nadine C. Folino-Rorem\*

Greg Ruiz

Wheaton College

Smithsonian Environmental Research Center

Smithsonian Environmental Research Center

Wheaton College

Smithsonian Environmental Research Center

Biology Department, Wheaton College, Wheaton, IL 60187

Laura.c.page@wheaton.edu

The invasion of fresh and saltwater ecosystems by non-indigenous species is a well-documented phenomenon. In the Chesapeake Bay alone, close to 150 known or suspected invasions have occurred. Ongoing research in areas such as species transfer, prevention of invasion, and effects of invasive species has increased our understanding of invasions ecology. *Victorella pavida* is a cryptogenic species of colonial upright bryozoan commonly found in freshwater/brackish systems. While *Victorella*, believed to have originated from the Caspian Sea, has been present for many years in the Chesapeake Bay, little is known about its impact on local fouling (hard substrate) community structure and development. In a “gardening” experiment in which *Victorella* was artificially removed and subsequent settlement followed, the impact of *Victorella*’s presence or absence on short-term fouling community development was measured. Conclusions from this experiment in the Rhode River, Upper Chesapeake Bay, are presented. As disturbance increased and *Victorella* percent cover decreased, the dominant structuring organism changed from *Victorella* to the less-prevalent tube-dwelling polychaete *Polydora*. *Victorella* had a substantial role as a structuring organism, with total species number and relative abundance of secondary organisms increasing in the presence of *Victorella*. In this particular location and season, a cryptogenic, possibly invasive, species has become the dominant organism to the possible exclusion of other native primary fouling organisms.